

Work Order ID 71571

Wednesday, July 06, 2011 1:20:05 PM



Page 1

| | | | | | |
|--------------------------|-----------------|--|---------------|-------|--|
| Item ID: D2804-2 | Accept | | Setup | Start | |
| Revision ID: | | | | Stop | |
| Item Name: Bracket | | | | | |
| Start Date: 7/6/2011 | Start Qty: 6.00 | | Cust Item ID: | | |
| Required Date: 7/20/2011 | Req'd Qty: 6.00 | | Customer: | | |
| Reference: | | | | | |

| | | | | | | | |
|------------|-------------------------|-----------------------|------------|-------|-----|-------|--|
| Approvals: | Process Plan: <u>CZ</u> | Date: <u>11/07/06</u> | Tooling: | Date: | Run | Start | |
| | QC: | Date: | SPC (Y/N): | Date: | | Stop | |

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

| Draw Nbr | Revision Nbr |
|----------|--------------|
| D2804 | Rev C |

| | | | | | | | | | |
|-----|--|------|--|--|--|--|--|--|--|
| 100 | | 0.00 | | | | | | | |
|-----|--|------|--|--|--|--|--|--|--|

| | | | | | | | | | |
|-------------------|-----------------------------------|------|--|--|--|--|--|--|--|
| | FLOW WATER JET | | | | | | | | |
| Waterjet | Memo | 0.00 | | | | | | | |
| FLOW CNC Waterjet | 1-Cut as per File D2804-1-2_BLANK | | | | | | | | |
| 6061 .5 X 10 | Dwg Rev: <u>C</u> | | | | | | | | |
| | Prog Rev: <u>C</u> | | | | | | | | |
| | 2-Deburr if necessary | | | | | | | | |

B11-8-11

6

| | | | | | | | | | |
|-----|--|------|--|--|--|--|--|--|--|
| 110 | | 0.00 | | | | | | | |
|-----|--|------|--|--|--|--|--|--|--|

| | | | | | | | | | |
|------------------------------|--------------------------------|------|--|--|--|--|--|--|--|
| | HAAS CNC VERTICAL MACHINING #1 | | | | | | | | |
| HAAS 1 | Memo | 0.00 | | | | | | | |
| HAAS CNC vertical machine #1 | Machine as per folio FA103 | | | | | | | | |

B.A 11/09/07

6
W
φ

| | | | | | | | | | |
|-----|--|------|--|--|--|--|--|--|--|
| 120 | | 0.00 | | | | | | | |
|-----|--|------|--|--|--|--|--|--|--|

| | | | | | | | | | |
|-----------------|---|------|--|--|--|--|--|--|--|
| | QC2- Inspect parts off machine FAI/FAIB | | | | | | | | |
| QC | Memo | 0.00 | | | | | | | |
| Quality Control | | | | | | | | | |

B.A 11/09/07

6
φ

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Work Order ID 71571

Wednesday, July 06, 2011 1:20:05 PM



Page 2

Item ID: D2804-2

Accept



Setup Start



Revision ID:

Item Name: Bracket

Stop



Start Date: 7/6/2011

Start Qty: 6.00



Cust Item ID:

Required Date: 7/20/2011

Req'd Qty: 6.00



Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start



QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

Quality Control

smk 11/09/08

6 0

140

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

6x Ø M 11/09/08

150

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

6 0 M 11/09/08

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
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| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
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NOTE: Date & initial all entries

Work Order ID 71571

Wednesday, July 06, 2011 1:20:05 PM



Page 3

Item ID: D2804-2

Accept



Setup Start



Revision ID:

Item Name: Bracket

Stop



Start Date: 7/6/2011

Start Qty: 6.00



Cust Item ID:

Required Date: 7/20/2011

Req'd Qty: 6.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

160

Identify as per dwg & Stock Location: ST 149

0.00



Packaging

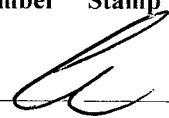
Memo

0.00

Packaging



11-09-08



170

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11/9/12

MF 11-09-08

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Picklist Print

Wednesday, July 06, 2011 1:20:02 PM

Page 1

Work Order ID: 71571

Parent Item: D2804-2

Parent Item Name: Bracket



Start Date: 7/6/2011

Required Date: 7/20/2011

Start Qty: 6.00

Required Qty: 6.00

Comments:

IPP A□00.11.06□New Issue□EC□
 IPP B□06.05.30 Blanks on wtjet□EC□
 IPP Rev:C As per Rev C 06-11-09 JLM
 IPP Rev:D Removed Tumbling 08-09-10 JLM Verified By:EC

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|

M6061T6B0.500X10.00

Purchased

No

f

3.0000

4.5

8

0



6061-T6 Bar .500 x 10.00

B 11-8-11

Location

Loc Qty

Loc Code

MAT004

3

111382

3

6061 T6 BAR .500 X 12.

118400

118400

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

| | | | |
|-------------------------------------|---------------|---------------------|---------|
| DART AEROSPACE LTD | | Work Order: | 71521 |
| Description: STA 155 Bracket | | Part Number: | D2804-2 |
| Inspection Dwg: D2804 | Rev: C | Page 1 of 1 | |

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article
 ☐ Prototype

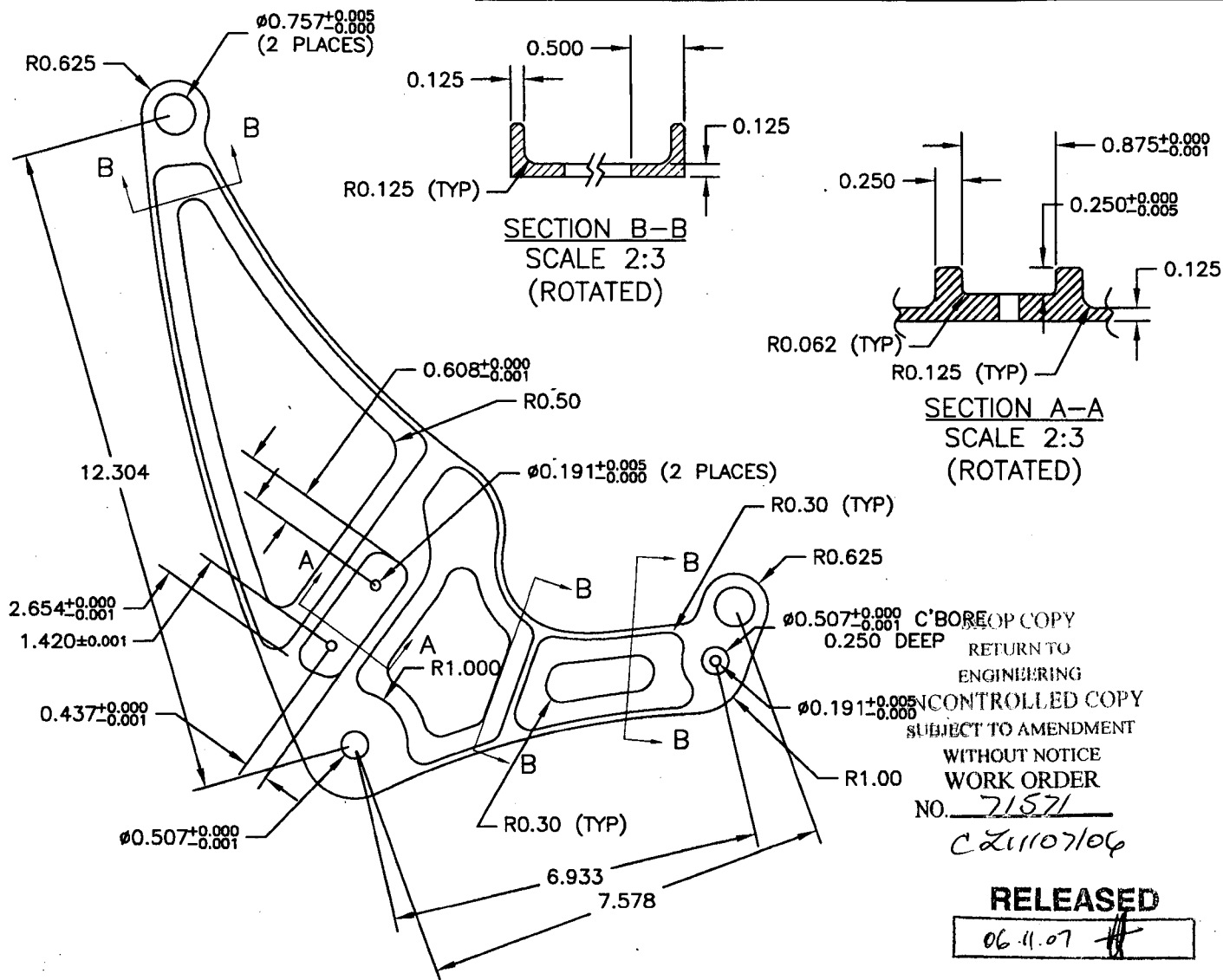
| Drawing Dimension | Tolerance | Actual Dimension | Accept | Reject | Method of Inspection | Comments |
|-------------------|---------------|------------------|--------|--------|----------------------|----------|
| 0.125 | +/-0.010 | 0.126 | ✓ | | Vern | GA-01 |
| 0.125 | +/-0.010 | 0.126 | ✓ | | " | " |
| R0.125 | +/-0.010 | R0.125 | ✓ | | R-G | ref |
| 0.250 | +/-0.010 | 0.251 | ✓ | | Vern | GA-01 |
| 0.250 | +0.000/-0.005 | 0.248 | ✓ | | D-G | GA-08 |
| 0.875 | +0.000/-0.001 | 0.8745 | ✓ | | Mic | GA-03 |
| R0.062 | +/-0.010 | R0.062 | ✓ | | R-G | ref. |
| Ø0.757 | +0.005/-0.000 | Ø0.759 | ✓ | | Vern | GA-01 |
| R0.625 | +/-0.010 | R0.625 | ✓ | | R-G | ref. |
| 12.304 | +/-0.005 | 12.304 | ✓ | | H-G | 31006 |
| Ø0.507 | +0.000/-0.001 | Ø0.5065 | ✓ | | Mic | GA-03 |
| 0.437 | +0.000/-0.001 | 0.4365 | ✓ | | Vern | GA-01 |
| 0.608 | +0.000/-0.001 | 0.6075 | ✓ | | " | " |
| Ø0.191 | +0.005/-0.000 | Ø0.192 | ✓ | | Vern | GA-01 |
| 1.420 | +0.001/-0.001 | 1.420 | ✓ | | " | " |
| 0.250 deep | +/-0.010 | 0.241 | ✓ | | D-G | GA-08 |
| 6.933 | +/-0.005 | 6.933 | ✓ | | Vern | CNC-02 |
| 7.578 | +/-0.005 | 7.578 | ✓ | | " | " |
| 0.500 | +/-0.010 | 0.491 | ✓ | | Vern | GA-01 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

| | | | |
|------------------------|-------------------------------|----------------------------|-----|
| Measured by: GA | Audited by: <i>anf</i> | Prototype Approval: | N/A |
| Date: 11/09/07 | Date: 11/09/08 | Date: | N/A |

| Rev | Date | Change | Revised by | Approved |
|-----|----------|--------------------------------|------------------|----------|
| A | 04.12.10 | New Issue | KJ/JLM | |
| B | 05.04.25 | Added 0.500 dimension | KJ/JLM | |
| C | 06.11.10 | Revised per drawing revision C | KJ/JLM <i>AF</i> | <i>B</i> |

DART

| | | | | | |
|---------|----------|----------|----|---|------------------------|
| DESIGN | CP | DRAWN BY | CP | DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | |
| CHECKED | # | APPROVED | # | DRAWING NO. D2804 | REV. C SHEET 1 OF 2 |
| DATE | 06.10.16 | | | TITLE STA 155 BRACKET | SCALE 1:3 |
| A | 00.11.07 | | | NEW ISSUE | |
| B | 04.11.22 | | | ADD CUTOUTS & -043/-044 | |
| C | 06.10.16 | | | CHANGE GEOM. TO ADD CLEARANCE | |

**D2804-1 BRACKET (SHOWN). D2804-2 BRACKET (OPPOSITE)**

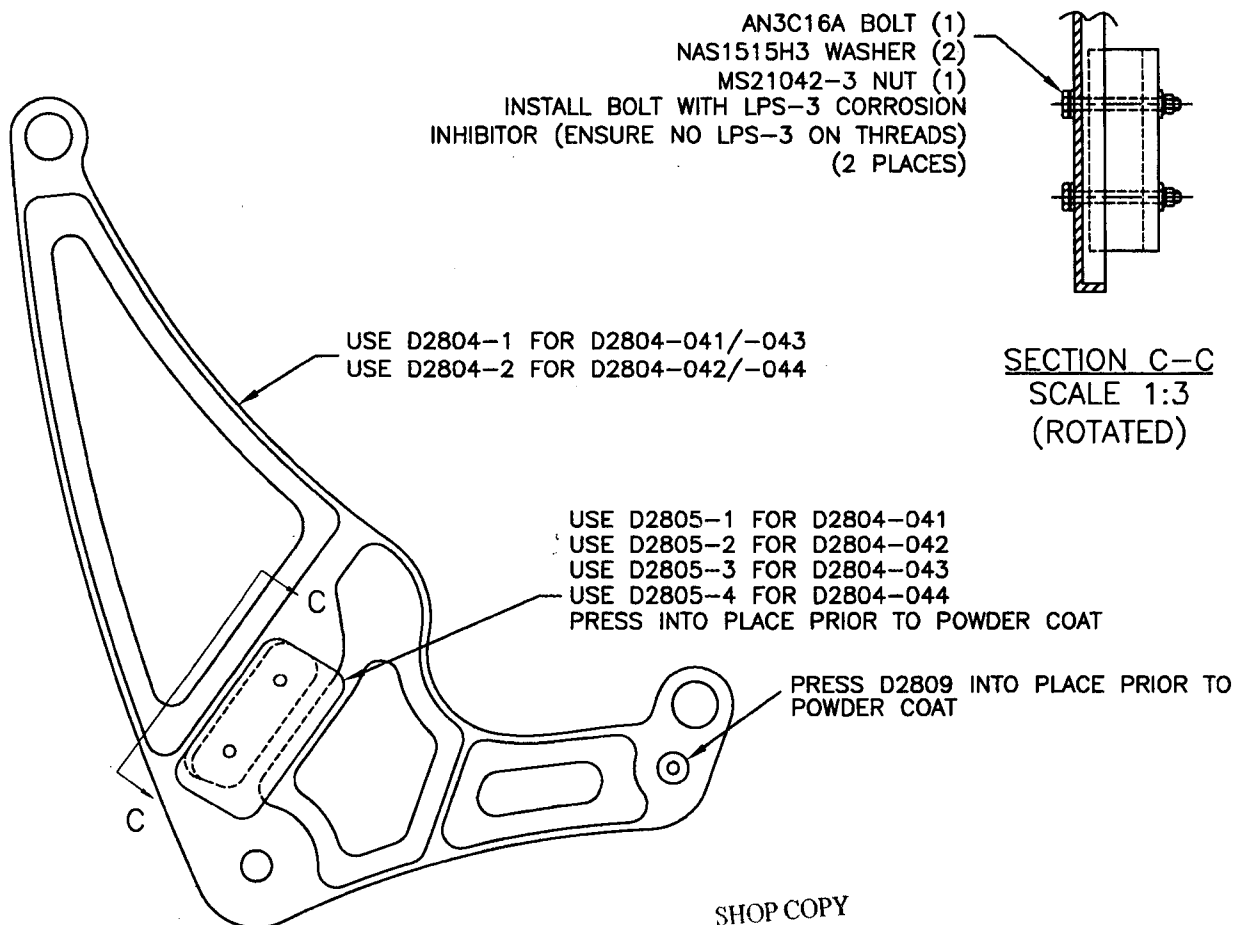
- 1) MACHINE PER DRAWING FILE "D2804-1C.SLDPRJT"
- 2) MATERIAL: 6061-T6 (QQ-A-200/8) OR (QQ-A-250/11) 0.500 THICK
- 3) DEBURR TO LEAVE R0.030 - 0.063 ON ALL EDGES
- 4) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

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DART

| | | | |
|------------------------|-------------------------|---|------------------------|
| DESIGN CP | DRAWN BY CP | DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | |
| CHECKED [Signature] | APPROVED [Signature] | DRAWING NO. D2804 | REV. C SHEET 2 OF 2 |
| DATE 06.10.16 | | TITLE STA 155 BRACKET | SCALE 1:3 |



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 71571

RELEASED

D2804-041/-043 BRACKET ASS'Y (SHOWN).
D2804-042/-044 BRACKET ASS'Y (OPPOSITE)

6) FINISH: POWDER COAT ASSEMBLY GLOSS WHITE (4.3.5.1) OR GREY SANDTEX (4.3.5.6)
OR BLACK SANDTEX (4.3.5.7) OR GREEN SANDTEX (4.3.5.8) PER DART QSI 005 4.3

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